

REMARKS

Claims 1, 3 and 6-13 are pending and rejected in the present application.

Claim Rejections - 35 U.S.C. §103

Claims 1, 3, 6-11 and 13 remain rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. 5,942,298 to Sakaya et al. in view of Gregorich et al. (Can. J Soil Sci 68: 395-403) with Encyclopedia Britannica (<http://www.britannica.com/EBchecked/topic/288836/inorganic-soil>) and Easton et al. (Trans. Faraday Soc. 1952, 48, 796-801) for reasons of record.

Claim 12 remains rejected under 35 U.S.C. §103(a) as being unpatentable over Sakaya et al. (U.S. 5,942,298) in view of Gregorich et al. (Can. J Soil 68: 395-403) in further view of Uchida et al. (U.S. 6,569,533) for reasons of record.

Applicant respectfully disagrees with the rejection and submits that the motivation to use hydrogen peroxide as taught by Gregorich et al. would not have motivated one to use hydrogen peroxide in the invention of Sakaya et al. because the particles requiring hydrogen peroxide in Gregorich et al. do not exist in the invention of Sakaya et al.

Applicant notes that the soil of Gregorich et al. contains organic matter and various size particles such as sand-size, silt-size and clay-size. The organic matter forms the microaggregates having various sizes by bonding primary particles having various sizes. That is, the sand-size particles in soil, for example, contain the clay minerals (primary particles) and the microaggregates (not primary particles). Similar can be said about the silt-size particles and clay-size particles in soil.

Gregorich et al. discloses that the hydrogen peroxide is added to the soil.

The hydrogen peroxide can destroy the organic matter that bonds the clay minerals in soil. Therefore, when the organic matter is destroyed by the hydrogen peroxide, the resultant particles contain less organic matter.

Applicant notes Table 1 of Gregorich et al. As for the resultant “Organic C” of H_2O_2 , sand and silt are much less than the clay. That is, after hydrogen peroxide treatment of the soil, the sand and silt size fractions less contains the organic matter. This means that primary particles are presented in most of these sized-fractions because the microaggregates are bonded with the organic matter. If there are more microaggregates in sand and silt size fractions, then more amount of “Organic C” must be shown. Here, it has been disclosed in Gregorich et al. that the sand size primary particle exists (page 400, first column). The amount of “Organic C” of the clay size fractions is large overwhelmingly compared with other sizes. This means that microaggregates are presented in most of clay size fractions because the microaggregates are bonded with the organic matter.

Therefore, Gregorich et al. discloses that by adding the hydrogen peroxide to the soil, various size particles (sand-size, silt-size, clay-size) are obtained. The hydrogen peroxide used in Gregorich can destroy the organic matter within sand and silt size fractions, but the hydrogen peroxide cannot destroy the organic matter within clay size fractions.

Applicant notes that there is shown no motivation to combine Sakaya et al. with Gregorich et al., because Sakaya et al. discloses a gas barrier coating composition containing an inorganic layered compound. Here, Sakaya et al. discloses that the inorganic layered compound

preferably has a swelling or cleaving property. This means that the organic matters within the clay size particles (inorganic layered compound) are destroyed (without using hydrogen peroxide). That is, the organic matters to be destroyed in Sakaya are within the clay size particles, but the organic matters to be destroyed in Gregorich are not within clay size particles. Therefore, it is obvious that the organic matters to be destroyed between Gregorich and Sakaya are completely different.

There is no motivation to combine Gregorich with Encyclopedia Britannica with the same reason as noted in the response to the previous Office Action. Applicant notes that Encyclopedia Britannica discloses that the bulk of inorganic soil comprises inorganic or mineral fraction. As mentioned above, Gregorich et al. intends to soil containing organic matters. Gregorich et al. uses peroxide only to destroy the organic matters in soil, to facilitate dispersion of sand, silt and clay in soil solution. Gregorich et al. does not teach or suggest that peroxide treatment is applied to any non-organic-containing inorganic soil, as in Encyclopedia Britannica.

There is thus no motivation to combine Gregorich with Encyclopedia Britannica.

Therefore, the present invention is not obvious from and Sakaya, Gregorich and Encyclopedia Britannica.

In view of the above remarks, Applicant submits that the claims are in condition for allowance. Applicant requests such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact the undersigned attorney to arrange for an interview to expedite the disposition of this case.

Application No. 10/524,680
Attorney Docket No. 043210

Response under 37 C.F.R. §1.111
Response filed **DRAFT**

If this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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